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On the Narrative Nature of Young Children's Iconic Representations: Some evidence and implications

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On the Narrative Nature of Young Children's Iconic Representations: Some evidence and implications

L'aspect Narratif des Représentations Iconiques des Enfants en Bas Âge—Résultats et implications

Sobre la Naturaleza Narrativa de las Representaciones Icónicas de los Infantes: Algunas evidenciase implicaciones

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ABSTRACT *Reflection on the relationship between a sign and its meaning (i.e. semiotic activity) is a fundamental form of cognitive activity that already occurs at an early age. The improvement of this semiotic activity in young children prepares for their later learning activity. Iconic representations are one important category of signs for young children (3–7 years old). Iconic representations (drawings, diagrams, schemes) are generally conceived of as means bridging the gap between early enactive, perception-bound thinking and abstract-symbolical thinking. From the Vygotskian perspective iconic representations are complex signs referring to some object (situation, action) in a special way. On the bases on the analysis of children's drawings it is argued that iconic representations are narrative in nature for young children. Children tend to supplement their drawings with verbal symbols in order to make sure that their intended meanings are maximally clear. In doing so, children learn to carry out semiotic activity and improve this activity with the help of more abstract symbols*

RÉSUMÉ *La réflexion sur le rapport entre un signe et son sens (c'est à dire l'activité sémiotique) est une forme fondamentale d'activité cognitive qui a lieu dès le plus jeune âge. L'amélioration de cette activité sémiotique chez les jeunes enfants les prépare aux activités d'apprentissage ultérieures. Les représentations iconiques sont une catégorie importante de signes pour les jeunes enfants (3 à 7 ans). Les représentations iconiques (dessins, diagrammes, schémas) sont généralement considérées comme une façon de réduire l'écart entre la pensée représentative, limitée par la perception, et la pensée abstraite-symbolique. Selon la perspective Vygostkienne, les représentations iconiques sont des signes complexes représentant un objet donné (situation, action) d'une façon particulière. Sur la base d'analyses de dessins d'enfants, il est avancé que les représentations iconiques sont de nature narrative chez les jeunes enfants. Les enfants ont tendance à compléter leurs dessins de symboles verbaux afin*

d'assurer que leur sens soit rendu le plus clair possible. De cette manière, les enfants apprennent à mener à bien une activité sémiotique et à améliorer cette activité avec l'aide de symboles plus abstraits.

RESUMEN *El reflejo de la relación entre un signo y su significado es una forma fundamental de la actividad cognitiva que ya ocurre en la infancia. El mejoramiento de esta actividad semiótica en los infantes los prepara para su aprendizaje más adelante. Las representaciones icónicas son una categoría importante de los signos para los infantes (de 3 a 7 años de edad). Las representaciones icónicas (dibujos, diagramas, esquemas) son concebidas generalmente como los medios que rellenan el vacío entre las primeras representaciones, el pensamiento de percepción limitada y el pensamiento simbólico-abstracto. De acuerdo a la perspectiva Vygotkian, las representaciones icónicas son signos complejos que se refieren a algunos objetos (situación, acción) de una manera especial. Basados en el análisis de unos dibujos de niños se sostiene que las representaciones icónicas son narrativas en su naturaleza para los infantes. Los niños tienden a complementar sus dibujos con símbolos verbales para asegurarse de que el significado deseado es completamente claro. Al hacerlo así, los niños aprenden a llevar a cabo actividades semióticas y a mejorar esta actividad con la ayuda de más símbolos abstractos.*

It is the meaning that is important, not the sign. We can change the sign, but retain the meaning.
L. S. Vygotksy, *Sobranie Socinenij*, T. 5, p. 74.

Semiotic Activity and Learning Activity

One important objective of education is the promotion and development of learning activity in children (as was argued by Davydov, 1988). However, as Vygotksy (1984, p. 27) pointed out, complex cognitive activity 'never appears in a ready-made form, but arises out of consecutive changes of genetically interrelated psychological structures'. It is reasonable to assume that this applies for the development of learning activity as well.

In previous studies (reported elsewhere, see Van Oers, 1994; 1996; in press a) we gave theoretical and empirical arguments in favour of the thesis that the promotion of learning activity can be prepared in the early grades (4–7-year-olds) by stimulating the development of the essential psychological prerequisites of learning activity during (role)play. More specifically, this article starts from the assumption, that the improvement of the younger child's methods of making meaning (*semiotic activity*) in the context of play is an essential basis for the promotion of learning activity in the disciplinary domains of later school learning.

However, as to the precise details of the development of semiotic activity in children during their school age, there are still lots of questions to be answered. It is generally accepted nowadays that the transition of the younger child's play activity towards a more discipline bound discursive learning activity is, among other things, accompanied by a development of logical forms of thinking with the use of language and other symbols. This form of representation takes its place beside the iconic (perception bound) forms that had dominated children's thinking at the younger ages (Werner & Kaplan, 1963; Bruner, 1964; Podd'jakov, 1977). Closely related to this development there is also a gradual change in semiotic activity as to the signs that are preferably used by the children. One of the questions that arises, then, is how the gradual transition from iconic representation (or the use of iconic signs) to abstract symbols takes place. According to Venger (1986) the use of schematic diagrams provides a bridge between iconic thinking and logical thinking. It has been demonstrated several times

recently, that young children can indeed successfully deal with schematic representations of reality (Athey, 1990; Van Oers, 1994; Karmiloff-Smith, 1995).

Although there is still much controversy about the psychological mechanisms behind this development of representation (or as I would say *semiotic activity*), it seems reasonable to assume that the improvement of schematic thinking in young children is one of the necessary conditions for the successful development of learning activity. However, the issue of the interrelationship between iconic and symbolic thinking within the development of semiotic activity is still open to many questions. In this article I will focus on this issue and, more specifically, deal with the function of children's speech related to their iconic representations of reality.

Semiotic Activity in Young Children

In our research program we are addressing questions related to the development of semiotic activity in children in a school context. Semiotic activity is defined here as the activity of relating a sign and its meaning, including the use of signs, the activity of investigating the relationship between (changes of) signs and (changes of) meaning, as well as improving the existing relationship between sign (or sign system) and meaning (or meaning system) [1]. Some of our earlier studies have demonstrated that young children in the early grades can be involved in semiotic activity as defined here, if this activity is based on the construction and use of self-made diagrams of real-life situations and objects (see Van Oers, 1994; 1996; in press a). Several studies of Russian investigators had established this fact too in different situations and under different conditions (Venger, 1986; Salmina, 1988; Glotova, 1990; Brofman, 1993).

In practice, schematic representations (like drawings, for instance) are often used as a starting point for semiotic activity of young children, as they can be used as meaningful objects of conversation and diagnosis. From a theoretical point of view, children's schematic diagrams can be considered as *complex signs* referring to external objects, actions or situations. They belong to a category of signs that Pierce would have called *icons*, i.e. signs that refer to an object (action, situation) by virtue of an inherent similarity between them. However, the psychological nature of these signs remains unclear in most studies. Particularly, the relationship between the *form* of the sign as a perceptual unit and its meaning needs further clarification. Can an iconic sign by its form (or by improvement of its form) ever refer in an all-encompassing way to its meaning, as is suggested by terms as 're-presentation'.

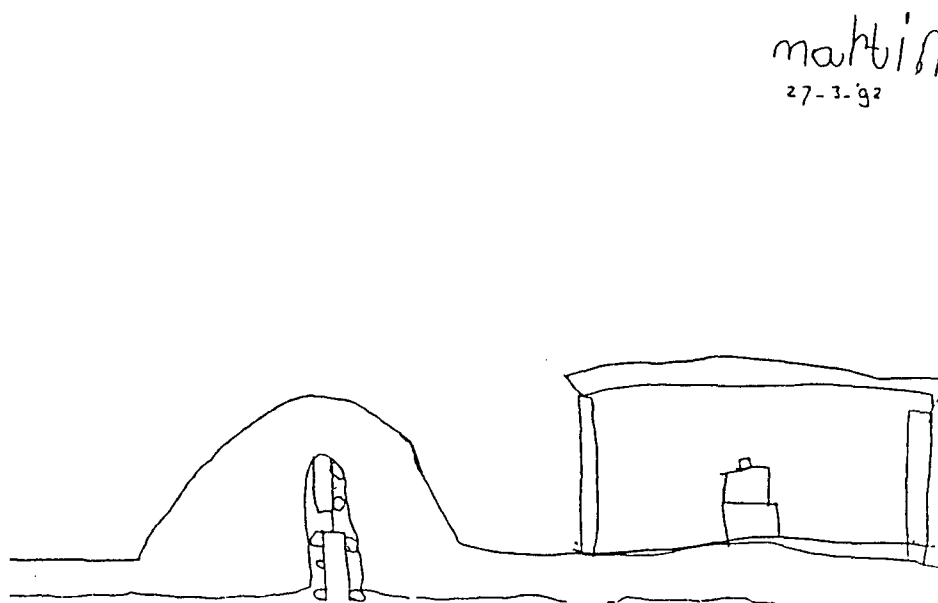
Preliminary Thoughts About Signs

Without doubt the sign is a core concept in Vygotskian thinking. However, Vygotsky never systematically examined this notion; his view on the issue is scattered throughout his works, and a detailed description of Vygotsky's view on the sign can only be put together from several of his publications.

Most studies of the sign starting from the Vygotskian perspective are biased towards language, using words as examples of the sign (see Wertsch, 1985; Sinha, 1988). This is understandable, considering the emphasis Vygotsky himself has laid on the role of language in cognitive development. As a result, however, most attention has been given to (what in a Piercian language would be called) the symbolic and indexical relationships between sign and meaning (see for example Wertsch, 1985; also Mertz & Parmentier, 1985). Obviously, this does not clarify the role of the iconic (perceptual) aspects of the sign in relation to its meaning.

An iconic sign suggests meaning as a result of its perceived structure. An iconic representation of reality by its very nature suggests some of the features of reality that the producer wants to draw attention to. However, as Vygotsky (1984) argued, this is seldom a result of pure perception. In his study of the tool and the symbol in the child's development Vygotsky (1984) [2] himself contemplated on the issue of perception and speech, in a way that is relevant for our problem here. Reflecting on children's drawings, he argues that early in development perception and speech become fused and from that moment perception can never be mere re-presentation, as speech co-determines perception. Vygotsky (1984) indicates two contributions of speech to perception:

Isolation/singling out. Speech articulates some aspects of the perceived object, isolates them for special examination or conversation. Indeed, we found many examples of this in our classroom observations. In one case (see Vlaming & Maaskant, 1992; Van Oers, 1994) children had drawn (individually) a railway track they collaboratively had made with their toy train set. One of the children made the following drawing:



When trying to interpret this drawing, another group of children discussed among each other the nature of the object in the middle. Was it a train underneath a bridge, a suitcase or a pillar? This conversation was made possible by the capacity to single out the object by way of words. Obviously, it was the language that could draw the attention of the participants in the conversation to a shared detail or part of the perceived object.

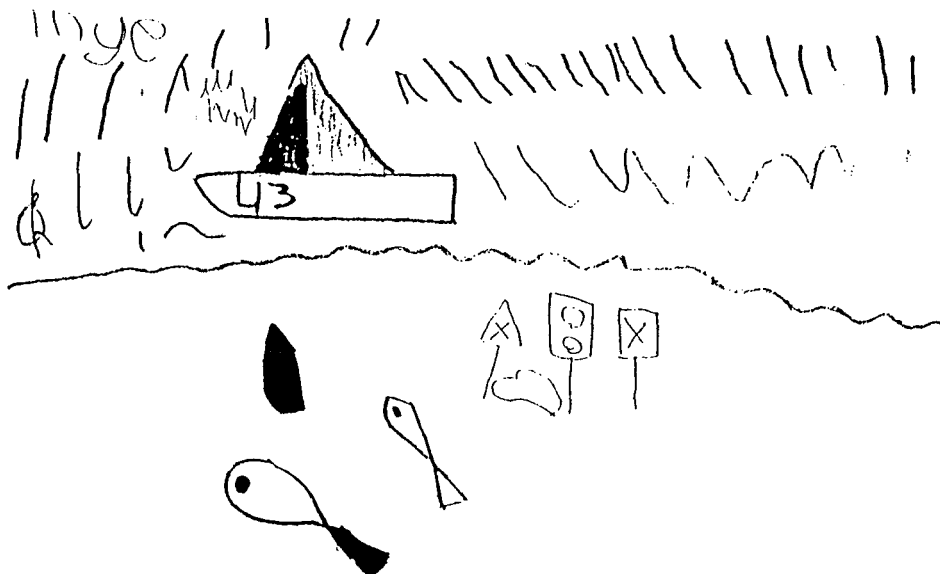
Structuring/transformation. Speech introduces deep alterations into the process of perception, according to Vygotsky. In addition to the initial articulatory function of speech, speech now is going to make perception more synthetic. Unfortunately, Vygotsky remains rather obscure as to what he means by that. We can reasonably guess that it means that the drawing is being perceived now as a culturally meaningful whole, subordinating the elements of the perceptual

field in one coherent interpretative reference frame. But now I am interpretatively filling in what Vygotsky might have had in mind when he mentioned the deep alterations of perception, as a result of the fusion with speech. However, instead of speculating further, I will present a few observations that might shed some light on the nature of the function of speech with respect to iconic representations.

Some Suggestive Observations

It has been observed by many parents, teachers and researchers, that children often spontaneously add verbal comments to their drawings and diagrams (see among others Athey, 1990, for lots of examples).

The following may be an indicative example of this phenomenon [3]. One child (6 years-old) made the following drawing:



As an accompanying statement to direct the perception and articulate the interpretation of the watcher she added that the boat was called forty-three, and that the fishes needed traffic signs: "I did not draw all the fishes, you know; there are also two traffic lights, a red and a green one. The fishes also see the crosses".

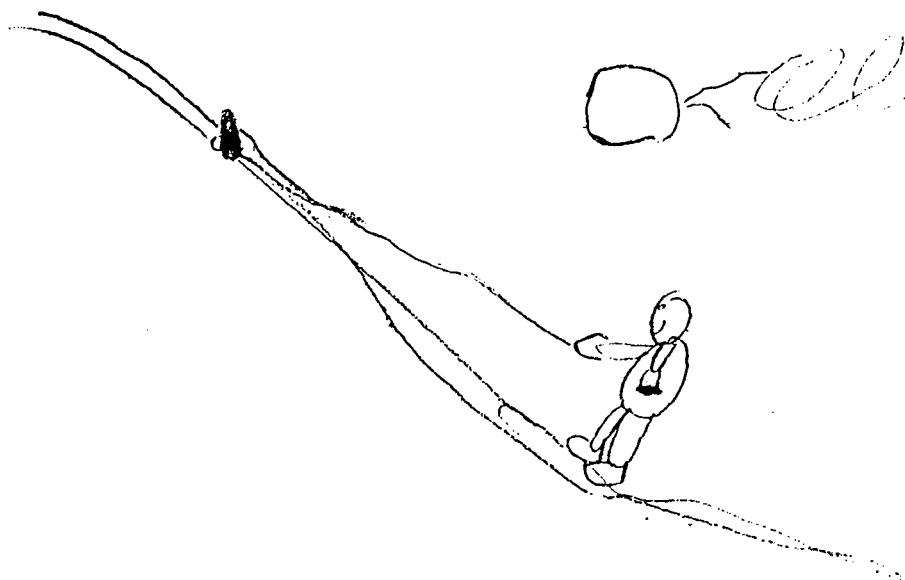
This little event is revealing for two reasons. First of all, the girl's remark '*I did not draw all the fishes*' is a telling evidence for the symbolic nature of the child's drawing. By saying this, she indicates that the two fishes she drew are representing a bigger number of fishes. Interestingly, a similar phenomenon with the same conclusion is described by Luria when he reports about a child having to draw the stars in the sky (Luria, 1978). Children's drawings—at least in some cases—apparently are meant as meaningful symbols. Secondly, this example shows that the girl's speech utterances are evidently not just accompaniments of the drawings. With her remarks the child wants to make sure that the observer sees the meaning of the

drawing *as it is meant*; the comments are given in order to articulate the drawing's coherent meaning.

Similar examples we found in our own classroom observations, indicating that not just things are represented in children's drawings, but meanings. Obviously, children often doubt whether their drawings are suggestive enough to communicate the meanings as they have in their minds. Speech is often explicitly used as an instrument that should complete (or guarantee) this perception of meaning ('poznajušcee vosprijatie' as Vygotsky would have called it). So speech has an *explanatory function* with respect to the drawing! Not just isolating elements of the representation, or altering the structure of the perceptive activity. Children's drawings and diagrams have a symbolic and communicative function, and language adds explanations to the iconic signs in order to make sure (as far as the producing child itself is concerned) that the correct meaning is communicated.

When children use iconic representations as signs, they often remark that their drawings may not be clear enough. In one of the school classes that I visited and videotaped several times, I witnessed a group of children (age 5–6) playing in a shoe shop (Van Oers, 1996). At a particular moment they become involved in the problem of how to indicate what sort of shoe was in a box, so that they wouldn't have to open all the boxes to find out what shoe was in it. Discussing the problem in the group (including the teacher), they decided to draw pictures of the shoes on labels and to stick these labels to the outside of the boxes. However, some of the children soon began to feel uneasy about whether these drawings were clear-cut enough for the customers to recognize the kind of shoe in the box. So they invented the idea of *adding* letters to the labels, that should explain the meaning of the drawings. One child wrote a letter 'M' onto her label and explained: "that means that there is a mother shoe in this box". The other children followed her lead (papa shoes got a 'P'; children shoes a 'K' (for the Dutch word 'Kinderen')). Here we see again that, at first, the speech productions function as an explanation of the drawings. For some of the children the letters eventually completely replaced the iconic representations of the shoes.

As a last, and very indicative observation I want to discuss an extended conversation with one child [4] that asked me if I could read the picture that she had drawn. It started like this:



I answered that I was not sure, if I got the meaning right: I thought it was a man walking his dog. Wrong! She decided to help me and wrote a few explaining words on the drawing:



The additions explained that there was a 'man' ('man') on a 'mountain' ('berg') and the dot uphill was 'a man in a cloud' ('man in wolk'). I then told her that I thought it was a picture of a man climbing a mountain with another man, connected to him by a rope. This was much better, the girl said to me, but not good enough for the real story the picture was telling. She asked me: "What are they *doing*?" (emphasizing 'doing') and I repeated hesitatingly "Climbing a mountain (?)". And then she answered me: "Yes, but that is not the story, that is not what really happens" and then she began to write the story down at the back of the paper with the picture on it:

er was eens een berg een heel-
 hoge. en er was eens een man
 en die had ook een vriend
 en die zouden naar de
 wolken en naar de zon en
 naar de sterren en naar de maan
 maar het lukte niet en ze
 hebben het nooit meer geprobeert

Which means:

Once there was a mountain; a very high one. And there was a man and he also had a friend and they wanted to go to the clouds and to the sun, and to stars and to the moon. But they did not succeed and they never tried it again.

The child apparently rejected my purely situational, descriptive account of the drawing. This example illustrates how children try to tell stories with their drawings and iconic representations. The representations of the children in this developmental period often have a narrative function. They do not just represent situations, but they are symbolically representing a *narrative*. This was obvious in cases of representation of imaginary situations, but it could also be observed in representation of real situations. In an attempt to make sure that all the elements of the narrative are communicated children add speech utterances to their representations. Most of the time these utterances refer to the *dynamic aspects* of the situation (what really happens), which they apparently feel are not clearly indicated by the drawing alone (see also Van Oers, in press a).

Conclusions and Implications

The few observations that we presented here, suggest that children often feel need to *explain* their iconic representations in order to make sure that the real meaning is communicated by it. The speech is not just for singling out elements of the representation, nor is it just altering the structure of the perceptive activity. Instead, it is often an articulation of the narrative function of the iconic representation and, consequently, an addition to optimize the communicative function of the drawings, above all with respect to the dynamic aspects of the situation represented.

If my suppositions about the narrative function of iconic representations for young children are correct, this certainly will have relevance for school learning. By giving systematic attention to the children's representations and discussing these with the children:

- (a) children can learn about the incompleteness of signs; (by the way, I tend to suppose that this is also true for symbols of the more abstract kind);
- (b) an opportunity is provided to introduce young children into the act of *explaining*, which is a basic element in learning activity (see Forman, 1992).

Speech enters into iconic representation as a means to make explicit the implicit dynamic aspects of the children's intended meaning. By providing these opportunities in early childhood education, drawings, schemes and diagrams can help to bridge the gap between iconic and logical discursive thinking. Improvement of the ability of explaining might be one important contribution to the development of discursive learning activity later on. Discussing iconic signs both encourages children to reflect on the adequacy of their signs and teaches them how to observe different narrative conventions (Harré & Gillett, 1994) or conventional conversational maxims (like the requirement of clarity/non-ambiguity, see Forman, 1992). Here starts the process of *dynamic schematization* that Werner and Kaplan (1963) consider to be the core process of all symbol formation. It is icon-related language that gradually moves the child into the more abstract forms of semiotic activity. In this transition stage icons and symbols go together and support each other. This might be a very important stage in the process towards more abstract thinking especially in the domains of literacy and numeracy (see Van Oers, in press b).

However, in order to implement this idea into practice, teachers in the early grades will have to abandon the idea that children's drawings are private expressions that shouldn't be discussed from another one's point of view. They will have to accept the idea that children's drawings are an attempt to communicate a narrative and to explain the meanings that the children have in their minds.

Notes

- [1] This broad definition is the reason that we prefer *semiotic activity* as a translation of what Vygotsky called 'znakovaja dejatel'nost'' rather than the more commonly used translations as 'sign-using activity' or 'symbolic activity'. These latter expressions refer to just some of the mental operations that Vygotsky probably had in mind when talking about 'znakovaja dejatel'nost'.
- [2] A somewhat altered version of this article is published recently in the Vygotsky reader edited by Van der Veer & Valsiner (1994, pp. 99–174). This version is attributed to Vygotsky & Luria, and it is carefully and most interestingly annotated by the editors.
- [3] Thanks to B. Pomper who communicated this drawing and accompanying comments to me.
- [4] That happened to be my daughter Sophie at the age of six. This is just one example of several similar conversations I was lucky to have with her.

References

- ATHEY, C. (1990) *Extending thought in young children. A Parent-teacher partnership* (London, P. Chapman).
- BROFMAN, V.V. (1993) Ob oposredstvovannom resenii poznatel'nykh zadach [On mediated solution of cognitive tasks] *Voprosy Psichologii*, 5, pp. 30–43.
- BRUNER, J.S. (1964) The course of cognitive growth, *American Psychologist*, 19, pp. 1–15.
- DAVYDOV, V.V. (1988) Problems of developmental teaching, *Soviet Education*, XXX, (8, 9, 10).
- FORMAN, E.A. (1992) Discourse, intersubjectivity and the development of peer collaboration: a Vygotskian approach, in: L. T. WINEGAR & J. VALSINER (Eds) *Children's Development Within Social Contexts: Metatheoretical, theoretical and methodological issues*, 1, pp. 143–159 (Hillsdale: N.J., Erlbaum).
- GLOTOVA, G.A. (1990) *Celovek i znak. Semiotiko-psichologičeskie aspekty ontogeneza čeloveka* [Man and sign. Semiotic-psychological aspects of human ontogenesis] (Izd-vo Ural'skogo Un-ta).
- KARMILOFF-SMITH, A. (1995) *Beyond modularity. A developmental perspective on cognitive science* (Cambridge: Mass, MIT-press).
- LURIA, A.R. (1978) The development of writing in the child, in: M. COLE (Ed.) *The Selective Writings of A. R. Luria*, pp. 145–194 (New York, Sharpe).
- MERTZ, E. & PARMENTIER, R.J. (1985) *Semiotic Mediation. Sociocultural and psychological perspectives* (Orlando, Academic Press).
- OERS, B. VAN, (1994) Semiotic activity of young children in play: the construction and use of schematic representations, *European Early Childhood Education Journal*, 2 (1), pp. 19–33.
- OERS, B. VAN, (1996) Are you sure? Stimulating mathematical thinking during young children's play, *European Early Childhood Education Journal*, 4(1), pp. 71–87.
- OERS, B. VAN, (in press a) Teaching opportunities in play, in: M. HEDEGAARD & J. LOMPSCHER (Eds), *Learning Activity and Development* (Aarhus University Press).
- OERS, B. VAN, (in press b) The appropriation of mathematical symbols, in: P. COBB, K. MCILAIN & E. YACKEL (Eds) *Symbolizing, Mathematizing, and Communicating in Mathematics Classrooms. Perspectives on discourse, tools and instructional design* (Mahwah, Erlbaum).
- PODD'JAKOV, N.N. (1977) *Myšlenie doškol'nika* [Thinking of the preschool child] (Moscow, Pedagogika).
- SALMINA, N.G. (1988) *Znak i simvol u obučenii* [Sign and symbol in education] (Izd-vo Moskovskogo Un-ta).
- SINHA, CHR. (1988) *Language and representation. A Socio-naturalistic Approach to Human Development* (Harvester-Wheatsheaf).
- VLAMING, J. & MAASKANT, P. (1992) *Een spoorbaan van betekenis. Over de betekenisgeving bij schematiseren door jonge kinderen in een communicatieve speelsituatie* [A relevant rail-way. Young children's sense-making by schematizing in a communicative play activity] Master's thesis, Faculty of Psychology and Education, Amsterdam: Free University.
- VEER, R. VAN DER & VALSINER, J. (Eds) (1994) *The Vygotsky Reader* (Oxford & Cambridge: Blackwell).
- VENGER, L.A. (1986) *Razvitie poznatel'nykh sposobnostej v processe doškol'nogo vospitanija* [The development of cognitive abilities in early education] (Pedagogika).
- VGOTSKY, L.S. (1984) Orudie i znak v razvitii rebenka [Tool and sign in the development of the child], in: L. S. VGOTSKY, *Sobranie Socinenij*, 6, pp. 6–90 [Collected Works, 6] (Pedagogika) (Originally published 1930).
- WERNER, H. & KAPLAN, B. (1963) *Symbol Formation* (John Wiley and Sons).
- WERTSCH, J.V. (1985) *Vygotsky and the Social Formation of Mind* (Cambridge: Mass, Harvard University Press).